

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Roland CAESAR, et al.

Confirmation No.: 1108

Appln. No.: 10/539,942

Art Unit: 3744

Filed: 06/17/2005

Examiner: Ljiljana V. Ciric

For: **METHOD FOR AIR CONDITIONING A MOTOR VEHICLE**

Attorney Docket No.: 3926-184

Customer No.: 41228

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §1.97 and §1.98  
DOCUMENTS FOR PLACEMENT IN FILE**

**Mail Stop Issue Fee**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Applicants appreciate the Notice of Allowance mailed June 10, 2009. Applicants wish to place in the file four documents cited in the Japanese corresponding application. For the reasons set forth below, these references are not considered relevant to the allowed US claims. Accordingly, it is requested that this submission be placed in the file without further consideration.

1. EP 0 991 536 B1 entitled "VEHICLE AIR CONDITIONING SYSTEM AND THE USE THEREOF"
2. JP 59024611 (U) entitled "AIR-CONDITIONER FOR A MOTOR VEHICLE"
3. JP 11286211 (A) entitled "VEHICLE AIR CONDITIONER"
4. US 5,819,551 entitled "AIR CONDITIONING APPARATUS FOR VEHICLE"

The relevancy of the documents is explained below.

**Document 1**

This document teaches a vehicle air conditioning system having a coolant circuit (12) comprised of at least one condenser (14), one expansion organ (16), one evaporator (18), and one compressor (20). The inventive air conditioning system also has a bypass line (24) which bypasses the condenser (14), and has at least one bypass valve (26, 28) for opening and closing said bypass line (24). In order to produce an improved vehicle air conditioning system which can be more effectively used during the warm-up phase of the drive assembly, the invention provides that a heat exchanger (22) is arranged in the coolant circuit (12). Said heat exchanger can be subjected to the action of the coolant and to the action of a coolant of a drive assembly (40). The inventive air conditioning system can be used during the cold-start phase in order to heat up the engine and the passenger compartment more quickly. An English abstract and claims are provided in the EP patnet.

The present inventors, in contrast, determined that fogging of a windshield occurs rather quickly, and accordingly it is necessary to stop or prevent this heat transfer to the condensed water on the evaporator as rapidly as possible. Thus, upon detection of a condition in which fogging is possible, steps have to be taken rapidly to prevent fogging.

In the present invention accomplishes this rapid intervention by regulating throttle valve (4) to throttle the mass flow of refrigerant in the circuit upstream of the passenger compartment heat exchanger (5), in such a manner that the moisture contained in the air stream passing the passenger compartment heat exchanger (5) is at least substantially condensed at the passenger compartment heat exchanger (5), and the moisture which has already condensed at the heat exchanger (5) remains at the heat exchanger (5). At this time the passenger compartment is heated by a heat source which is outside the circuit (1) until the temperature in the passenger compartment exceeds an upper limit temperature of the predefined range. See the specification, paragraph [00011] and claim 6: "the throttle valve (4) is controlled by signals from the temperature and humidity sensors ...".

There is no mention in document 1 that a throttle can be used to control the mass flow of refrigerant. Further, claim 6 as amended concludes with the recitation “heating the passenger compartment by a heat source which is outside the circuit (1) until the temperature in the passenger compartment exceeds an upper limit temperature of the predefined range”. Document 1 does not teach a heat source located outside the refrigerating circuit of the air conditioning, which heats the compartment during throttling of the mass flow of the refrigerant.

Accordingly, claim 6 is not anticipated by Document 1.

### **Document 2**

An English language abstract of Document 2 is provided. For the same reasons as explained above for Document 1, Document 2 is not relevant to the presently allowed claims.

### **Document 3**

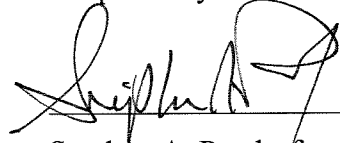
Document 3 was previously cited in an IDS filed 2/7/2008, and was considered by the Examiner.

### **Document 4**

Document 4 is in the English language, and was merely cited for describing that the inside air is recirculated at the time of heating and dehumidifying in the air conditioner in a motor vehicle. For the same reasons as explained above for Document 1, Document 2 is not relevant to the presently allowed claims.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicants do not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Stephan A. Pendorf', is written over a horizontal line.

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